

**Amendments to the Specification:**

Please replace the Abstract with the following amendments:

**ABSTRACT**

~~The present invention relates to a system applied for the measurement of the total ohmic internal resistance of fuel cells and stack of fuel cells. The apparatus comprises an electronic load system which comprises: an input unit generating an input pulse, a driver for the control of the input pulse, a MOSFET module comprising at least one MOSFET device for the generation of a short circuit in a fuel cell, a bank of selectable resistors and a measuring circuit which comprises: a shunt for converting the fuel cell current into a voltage signal, differential amplifiers for the current and the voltage signals and a data acquisition system which receives the voltage and the current signals obtained by the differential amplifiers.~~

The present invention relates to an apparatus used to measure the total ohmic internal resistance of fuel cells and fuel cell stacks. The apparatus includes an electronic load system used to generate a pulse short circuit in a fuel cell sample. The electronic load system includes an input unit used to generate an input pulse. A driver is used to control the input pulse. A MOSFET module including at least one MOSFET device is used to generate a short circuit in the fuel cell. A bank of selectable resistors and a measuring circuit are also included. The measuring circuit includes a shunt for converting the fuel cell voltage into a current signal. Differential amplifiers for the current and the voltage signals are included in the measuring circuit. The measuring circuit also includes a data acquisition system capable of receiving the voltage and current signals obtained by the differential amplifiers.

Please replace paragraph [0041] of the specification with the following amendments:

[0041] In those and many other cases, the necessary accuracy of the measurement is always influenced by negatively conditioning technical and practical factors which sink the recovery and increase the application costs of the systems.

**BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1 illustrates a schematic of an electronic load.

Figure 2 is a schematic of a measurement circuit.